

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 1-11, all directed to elected subject matter, are pending in the application subsequent to entry of this Amendment.

Claims 12-17, directed to non-elected subject matter, have been canceled, it being understood that this action is taken without disclaimer and without prejudice to a divisional application directed to the product claims.

The Official Action includes issues of claim clarity and patentability and are addressed in the order presented in the remarks that follow.

Claim Rejections – 35 USC §112, ¶2

The examiner observes the phrase "of the virgin starting material" in claims 2 and 7 and the phrase "the cooling capacity" in claim 10 lack antecedent basis. Applicants agree with the examiner's objection to these phrases, and to overcome this objection, claims 2, 7 and 10 are amended to replace "the" with --a-- in each of these phrases.

Claim Rejections – 35 USC §103(a)

Claims 1 to 8 stand rejected under 35 USC §103(a) as being unpatentable over Asami et al (U.S. 4,851,376) and claims 9 to 11 also under 35 USC §103(a) as being unpatentable over Asami et al (U.S. 4,851,376) and in further view of Andou et al (U.S. 6,284,188). Applicant traverses both rejections.

Claim 1 is amended to quantify the classification/removal step to remove at least particles having a particle size of less than 1 mm to produce a reclaimed powder composed of particles falling in a predetermined size range. The reclaimed powder is used at least as a part of the ceramic starting material in the mixing step.

The addition of the phrase "having a particle size of less than 1 mm" is supported by the descriptions on page 10, lines 18 to 20 and page 25, lines 7 to 17.

As recited in amended claim 1, and all others by virtue of their dependency on claim 1, the present invention is directed to a method for producing a cordierite ceramic body from a ceramic starting material and is characterized by using as a part of the ceramic starting material a reclaimed powder - free from particles having a particle size of less than 1 mm - which was produced from an additional reclaiming step including crushing and classifying.

According to the present invention, because the reclaimed powder added to a ceramic starting material has no finely divided particles having a particle size of less than 1 mm, it is effective to prevent deterioration of the thermal expansion coefficient of the cordierite ceramic body thereby improving its quality. This is described in the specification on page 10, lines 18 to 20 and page 25, lines 7 to 17 and illustrated in the data contained in Figures 7 to 12.

The examiner asserts that the claimed step of crushing the unnecessary part generated during cutting is described in U.S. '376. However, the present invention is clearly distinguished from U.S. '376, because the present invention further includes the step of removing particles having a particle size of less than 1 mm in a classifying step to thereby improve the quality of the cordierite ceramic body, whereas U.S. '376 is silent concerning such a specific classifying/removal step. This step of applicant's claim 1 is not addressed in the argument in support of the rejection.

It will be apparent then that according to U.S. '376, finely divided particles produced upon crushing and milling of the dried, unfired scrap necessarily contain particles having a particle size of less than 1 mm because of the absence of a classifying step.

In the rejection of claims 9 to 11, the examiner argues that U.S. '376 is silent in disclosing the type of machine used for kneading and extruding the ceramic material, however, U.S. '188 teaches of using a molding machine designed for kneading and extruding the starting ceramic material to form a honeycomb cordierite.

Contrary to this observation, according to the present invention, the humidifying and molding steps are preformed in the same molding machine in order to ensure mixing of the mixed starting material with the unnecessary part generated in the cutting step and the humidifying liquid. The examiner will note that the molding machine of U.S. '188 is not intended to be used in such a specific kneading process, and thus the present invention

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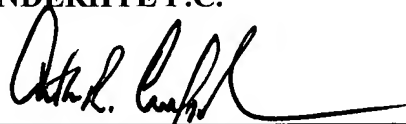
characterized by reclaiming the unnecessary part would not result even by combining U.S. '376 and U.S. '188.

For the above reasons it is respectfully submitted that the claims of this application as above amended define inventive subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

Respectfully submitted,

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